

Amendments to the Claims:

Please replace all prior claims versions and listings with the following:

Listing of Claims:

Claims 1-9 (canceled)

10. (amended) A method for carrying out a liquid/solid or gas/liquid/solid reaction comprising the step of conveying a liquid or gas/liquid feedstream through a solid catalyst of honeycomb configuration comprising a plurality of parallel channels bounded by catalytically active walls traversing the catalyst from an inlet end to an outlet end thereof to achieve catalytic conversion of the liquid, wherein the cross-sectional shape of the channels is free of angled corners and free of curvatures having curvature radii below 10% of the average channel diameter.

11. (canceled).

12. (original) The method in accordance with claim 10 wherein said reaction comprises a gas/liquid/catalyst reaction.

13. (original) The method in accordance with claim 10 wherein said channels are utilized for conducting gas/liquid/catalyst hydrotreating reactions.

14. (original) The method in accordance with claim 10 wherein said channels are utilized for conducting gas/liquid/catalyst hydrogenation reactions.

15. (original) The method in accordance with claim 10 wherein said reaction is conducted under conditions of liquid linear velocity of between approximately 0.01 and 100 cm/s.

16. (original) The method in accordance with claim 12 wherein said reaction is conducted under conditions wherein said feed has a gas/liquid volume ratio of between approximately 0 and 1000.

17. (original) A method for carrying out a hydrotreating reaction comprising the step of conveying a gas/liquid feedstream through a solid catalyst of honeycomb configuration

comprising a plurality of parallel channels bounded by catalytically active walls traversing the catalyst from an inlet end to an outlet end thereof, wherein the cross-sectional shape of the channels is free of angled corners and free of curvatures having curvature radii below 10% of the average channel diameter.

18. (original) A method for carrying out a gas-liquid mass-transfer process comprising the step of conveying gas and liquid feedstreams through a packing structure of honeycomb configuration comprising a plurality of parallel channels bounded by channel walls traversing the structure from an inlet end to an outlet end thereof, wherein the cross-sectional shape of the channels is free of angled corners and free of curvatures having curvature radii below 10% of the average channel diameter.

19. (original) A method in accordance with claim 18 wherein the gas-liquid mass transfer process is an absorption, scrubbing, stripping or distillation process.

20. (amended) A method for carrying out a liquid/solid or gas/liquid/solid reaction comprising the step of conveying a liquid or gas/liquid feedstream through a solid catalyst of honeycomb configuration comprising a plurality of parallel channels bounded by catalytically active walls traversing the catalyst from an inlet end to an outlet end thereof to achieve catalytic conversion of the liquid, wherein

- (a) the cross-sectional shape of the channels is free of angled corners and free of curvatures having curvature radii below 10% of the average channel diameter;
- (b) the liquid is passed through the solid catalyst at a liquid linear velocity between 0.01 and 100 cm/s; and
- (c) the feedstream has a gas/liquid volume ratio of between 0 and 1000.